

FIG. 1

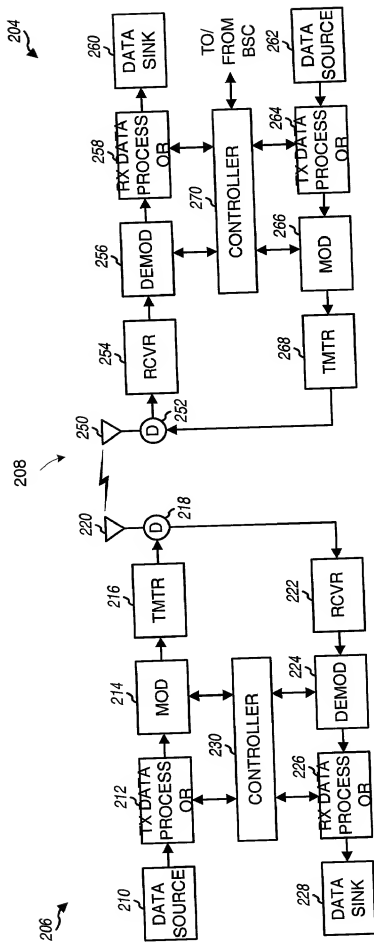


FIG. 2

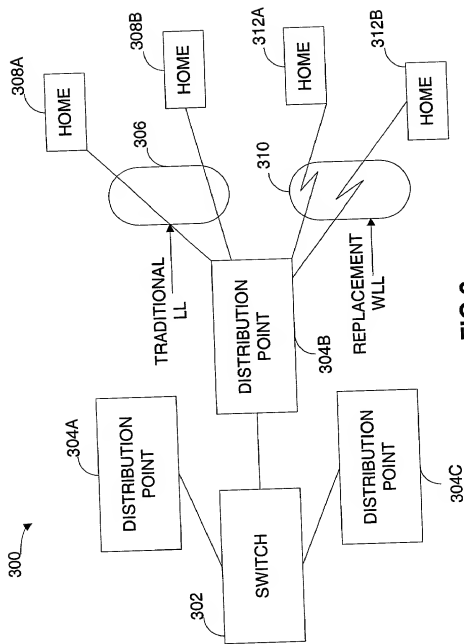


FIG.3

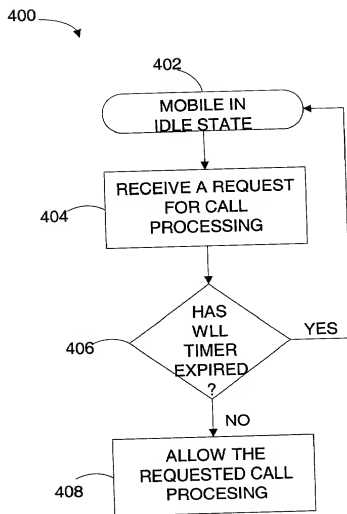


FIG.4

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graph TD
    A((A)) --> 502[MOBILE GENERATES A FIRST CODE (N) WHILE IN IDLE STATE]
    502 --> 504[MOBILE ENCRYPTS N WITH A COMMON CODE (P) PROGRAMMED IN BOTH THE MOBILE AND ITS COMPANION CHARGING UNIT]
    504 --> 506[MOBILE ENCRYPTS AND STORES A SECOND CODE (N+1) WITH P]
    506 --> 508[MOBILE ATTEMPTS TO SEND THE ENCRYPTED N TO ITS COMPANION CHARGING UNIT]
    508 --> 510{IS MOBILE IN ITS COMPANION CHARGING UNIT ?}
    510 -- NO --> A
    510 -- YES --> 512[CHARGING UNIT RECEIVES THE ENCRYPTED N]
    512 --> 514[CHARGING UNIT DECRYPTS N]
    514 --> 516[CHARGING UNIT ENCRYPTS N+1 WITH P]
    516 --> B((B))
  
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FIG.5A

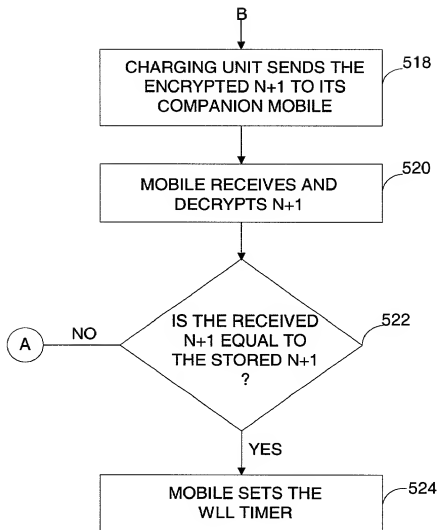


FIG.5B

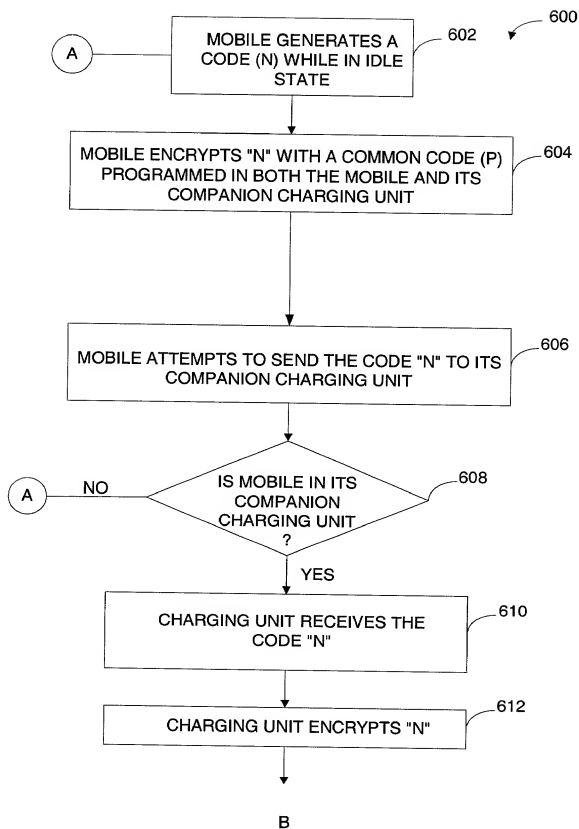


FIG.6A

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graph TD
    B((B)) --> 614[CHARGING UNIT SENDS THE ENCRYPTED "N" TO ITS COMPANION MOBILE]
    614 --> 616[MOBILE RECEIVES ENCRYPTED "N"]
    616 --> 618{IS THE RECEIVED ENCRYPTED "N" EQUAL TO THE STORED ENCRYPTED "N" ?}
    618 -- NO --> A((A))
    618 -- YES --> 620[MOBILE SETS THE WLL TIMER]

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FIG.6B

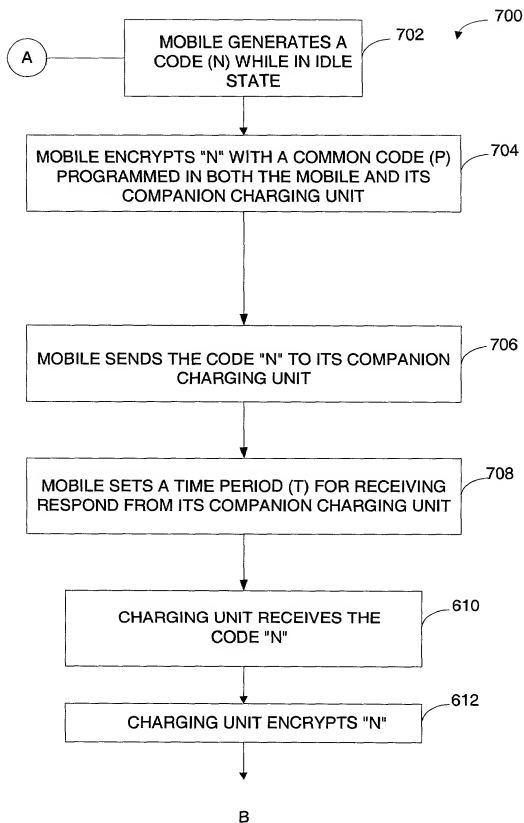


FIG.7A

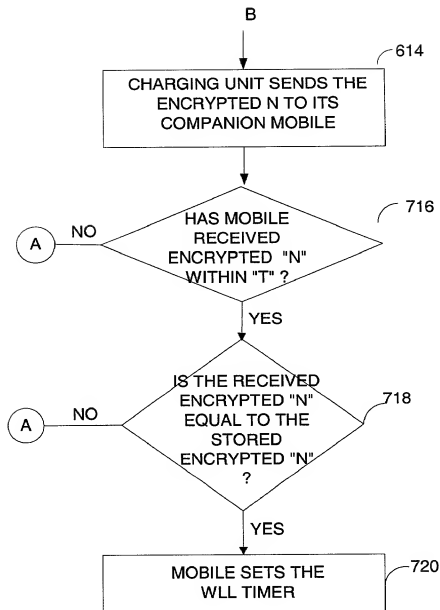


FIG.7B